

- HICKMAN V.V., 1948. Tasmanian Araneae of the family Hahniidae with notes on their respiratory systems. *Pap. proc. Roy. Soc. Tasmania*, 1947:21-35.
- LEHTINEN P.T., 1967. Classification of the Cribellate spiders and some allied families, with notes on the evolution of the suborder Araneomorpha. *Ann. Zool. Fenn.*, 4:199-468.
- MARPLES B.J., 1955. Spiders from Western Samoa. *J. Linn. Soc. Zool.*, 1955:453-504.
- RAINBOW W.J., 1920. Arachnida from Lord Howe and Norfolk islands. *Rec. South Austral. Mus.*, 1:229-272.

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SPIDERS FROM MELANESIA III. A NEW ALISTRA
(ARANEAE, HAHNIIDAE) FROM THE SOLOMON ISLANDS*

ABSTRACT. *Alistra mendanai* n. sp. (♀, ♂ unknown; Guadalcanal and Malaita, Solomons) is described, it is near to *A. astrolomae* (Hickman, 1948), and *A. berlandi* (Marples, 1955), comb. nov. and distinguishable by its genitalia.

The following new synonymies and combinations are proposed: *Kapanga* Forster, 1970 = *Tuata* Forster, 1970; *Alistra* Thorell, 1894 = *Tawerana* Forster, 1970; *Scotospilus* Simon, 1886 = *Tuana* Forster, 1970 (*Neoaviola* Butler, 1929 and *Intibuatana* Lehtinen 1967, are probable synonyms resp. of *Rinawa* Forster, 1970, and *Poria* Forster, 1970); all species of *Tawerana* described by Forster, (1970), and *Habnia berlandi* Marples, 1955, are transferred to *Alistra*, whereas *Habnia ampullaria* Hickman, 1948, and *Neoaviola wellingtoni* Hickman, 1948, as well as all *Tuana* are transferred to *Scotospilus*.

RIASSUNTO. *Ragni della Melanesia III. Una nuova Alistra delle Salomone (Araneae Hahniidae)*. Viene descritta *Alistra mendanai* n. sp. (♀, ♂ ignoto) delle isole di Guadalcanal e Malaita, Salomone, prossima ad *A. astrolomae* (Hickman, 1948), e ad *A. berlandi* (Marples, 1955), comb. nov., distinguibile per i genitali. Vengono proposte le seguenti nuove sinonimie e combinazioni: *Kapanga* Forster, 1970 = *Tuata* Forster, 1970; *Alistra* Thorell, 1894 = *Tawerana* Forster, 1970; *Scotospilus* Simon, 1886 = *Tuana* Forster, 1970; sono giudicate probabili le sinonimie tra *Neoaviola* Butler, 1929, e *Rinawa* Forster, 1970, e tra *Intibuatana* Lehtinen, 1967, e *Poria* Forster, 1970; tutte le specie di *Tawerana* e *Habnia berlandi* Marples, 1955, vengono trasferite ad *Alistra*, mentre *Habnia ampullaria* Hickman, 1948, e *Neoaviola wellingtoni* Hickman, 1948, nonché tutte le specie di *Tuana* vengono trasferite a *Scotospilus*.

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Our knowledge on the Hahniidae from Oceania and specially on their relationships with the other zoogeographical regions is very limited; Forster (1970) has illustrated no less than 27 species from New Zealand but has attributed them all to apparently endemic genera; 8 other species were known from the region (5 from Tasmania and one each from Victoria, Lord Howe Island and Western Samoa). As I shall demonstrate later, the fauna of Oceania is in my opinion in no way isolated, but it is closely linked with that of the Oriental and – perhaps – the Neotropical regions.

The species here described was collected during the fourth research voyage in the Indo-Austral region. We stopped for a few days in the Solomons, only in the islands of Guadalcanal and Malaita and collected along the different roads irradiating respectively from Honiara and Auki. Both specimen of the new species were obtained by beating vegetation in scanty remains of primary (?) forests; the locality « Mount Austin » on Guadalcanal corresponds to a series of hills a few km S of Honiara through which a road passes; the road ends at a river; we collected in many stations along the road after the World War II Memorial. « Dala » is a small village about 30 km NW of Auki; we collected in a wood along a small river.

Alistra mendanai n. sp.

Solomons, Guadalcanal, Mount Austin, 7.II.1982 1 ♀ (Holotype), P. Brignoli leg. (Collection Brignoli, L'Aquila).

Malaita, Dala, 12.II.1982, 1 ♀ (Paratype), P. Brignoli leg. (Coll. Museo Civico di Storia Naturale, Verona).

DESCRIPTION. Prosoma long, pear shaped, brownish, darkened around the fovea and on its margins; fovea a narrow dark streak; AM eyes smaller than the PM; MOT an elongated trapezium; labium wide; maxillae subrectangular, parallel; apex of sternum widely truncate; abdominal pattern: 5 series of whitish « accents » on a dark background; position of tracheal stigma 0,2; reduced colulus; spinnerets in a streght row; relative lengths: bPs > MS > AS; apical/basal segment of PS: 0,85; femoral, metatarsal and tarsal spines absent; tibial spines: 1 dorsal and 1 basidorsal; one tarsal trichobothria; one apical metatarsal trichobothria; legs annulated, with partially incomplete rings; vulva, see fig. 1.

MEASUREMENTS (in mm). Prosoma 0,72 long, 0,51 wide; abdomen 0,97 long. Total length: 1,69.

Legs	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	0,50	0,15	0,40	0,35	0,27	1,67
II	0,50	0,15	0,37	0,31	0,23	1,56
III	0,43	0,20	0,33	0,30	0,28	1,54
IV	0,50	0,20	0,43	0,40	0,32	1,85

DERIVATIO NOMINIS. The species is named after Mendana, the Spanish explorer who discovered the Solomons.

DISCUSSION. Lehtinen (1967) has published a review of the genera of the Hahniidae from which it is not easy to understand the autapomorphies of each genus; still, from his illustrations and from what is known on the family it is apparent that there are few non genitalic autapomorphies and that the easiest way to « construct » genera is to unite into clusters the species with genitalia of the same type.

The male genitalia are extremely uniform and are of little use to this purpose, with a few exceptions; Forster (1970) has given some importance to the presence/absence of the median apophysis, but as in all known Hahniids this structure is very small and appears rather rudimentary, I would not give to it much value. The female genitalia are much more interesting and seem very useful; also Forster (op. cit.) has largely used them for limiting his genera. The presence of complicated genitalia of the same general pattern is an evident synapomorphy, but the persistence of a primitive tracheal system is a symplesiomorphy. I cannot therefore follow Forster and accept both *Kapanga* Forster, 1970, and *Tuata* Forster, 1970, which share the same type of genitalia, but are divided only by the tracheal spiracle (deplaced more anteriorly in *Tuata*) and some other insignificant characters, as the height of the clypeus and the relative lengths of the basal and distal segments of the spinnerets. A posterior tracheal spiracle is a primitive character (and therefore useless for limiting a genus) whereas the other characters may have some importance only if the differences are very marked (which is not the case). I propose therefore *Kapanga* Forster, 1970 = *Tuata* Forster, 1970, Syn. Nov. (the first name has page-priority).

The remaining genera instituted by Forster in 1970 (*Kapanga*, *Rinawa*, *Tuana*, *Poria*, *Tawerana*) are all very homogeneous and monophyletic; unfortunately Forster, for reasons which I do not understand, has not tried to establish their relationships with the other known genera of the family. He has excluded only the possibility of the

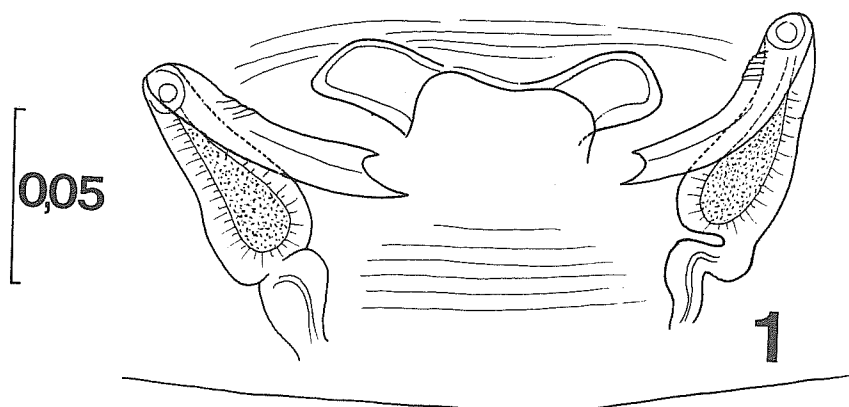


Fig. 1. Vulva of *Alistra mendanai* n. sp., externally. Scale in mm.

correspondance of any of his genera with the Australian *Neoaviola* Butler, 1929, and *Scotospilus* Simon, 1886, because of the presence of a median apophysis in the male palp of the majority of the New Zealand genera, but this does not apply to *Rinawa* and *Tuana*, in which the apophysis is absent.

This overrating (in my opinion) of the importance of the median apophysis has probably brought Forster not to consider in any way the genus *Alistra* Thorell, 1894, (present in the Pacific according to Lehtinen, 1967) and also *Intibuatana* Lehtinen, 1967, which, as all genera of the southern tip of South America, should always be kept in mind by students of the spiders of the Southern Hemisphere.

The examination of the –unfortunately incomplete– illustrations of the female genitalia of some species of *Neoaviola*, *Scotospilus*, *Alistra* and *Intibuatana* by Lehtinen (op. cit.) reveals that *Alistra* has a vulva very similar to that of *Tawerana*. In this last genus there are also two small accessory receptacles, which are apparently absent in the species illustrated by Lehtinen, but in the new species from the Solomons, on the copulatory ducts, more or less in the same position in which in *Tawerana* are the accessory receptacles, I have found a small protuberance (or, more exactly, a corrugated region), which, most evidently could be interpreted either as the trace of a disappeared receptacle or as the beginning of one. At this point the preservation of *Tawerana* is in my opinion a matter of taste: if future research revealed that all species not from New Zealand of this group lack a median apophysis and accessory receptacles, it could be perhaps maintained as a subgenus,

but for the moment, I prefer to write *Alistra* Thorell, 1894 = *Tawerana* Forster, 1970, syn. nov.

The illustrations by Lehtinen of the generotype of *Scotospilus*, *S. bicolor* Simon, 1886, are sufficiently detailed for noting an evident similarity with *Tuana* Forster, 1970, to a point that a synonymy appears completely justified (syn. nov.).

Unfortunately, on the other hand, the illustrations of the generotypes of *Neoaviola* and *Intibuatana* by Lehtinen are insufficient; still I note a certain similarity between *Neoaviola* Butler, 1929, and *Rinawa* Forster, 1970, and a very marked correspondance between *Intibuatana* Lehtinen, 1967, and *Poria* Forster, 1970, to a point that a synonymy may be justified in future.

If I am right, *Kapanga* should be the only endemic (?) Hahniid genus of New Zealand.

Alistra has a rather interesting distribution: it includes 3 species from Ceylon, 1 from Luzon, 1 undescribed from Vietnam (Lehtinen, 1967), 2 from Melanesia (*A. mendanai* and an undescribed one from the Bismarck Archipelago, Lehtinen, 1967), 1 from Tasmania (*A. astrolomae* Hickman, 1948), rather near to *A. mendanai*, but with ducts directed much more anteriorly), 1 from Lord Howe Island (*A. pusilla* (Raibow, 1920), known only on the ♂, much larger –2,5 mm long– than *A. mendanai*), 7 from New Zealand (all described by Forster, 1970: *A. reinga*, *A. mangareia*, *A. tuna*, *A. inanga*, *A. centralis*, *A. opina*, *A. napua*, all comb. nov.) and 1 from Western Samoa (*A. berlandi* (Marples, 1955), comb. nov. which has a vulva somewhat similar to that of *A. astrolomae*).

Scotospilus is apparently limited to Tasmania and New Zealand; it includes *S. bicolor* Simon, 1886 (nec Hickman, 1948), *S. hickmani* Lehtinen, 1967 (= *bicolor* Hickman, 1948), *S. wellingtoni* (Hickman, 1948), comb. nov. (from *Neoaviola*) and (probably) *S. ampullaria* (Hickman, 1948), comb. nov. (from *Hahnia*) as well as the four *Tuana* described by Forster, 1970, (*S. plenius*, *S. nelsonensis*, *S. divisus*, *S. westlandicus*, all comb. nov.).

The sixth certainly valid Pacific genus is *Neoaviola*, with only (?) *N. insolens* Butler, 1929. No true *Hahnia* lives in the Pacific.

REFERENCES

- BUTLER L.S.G., 1929. Studies in Victorian spiders. n. 1. *Proc. Roy. Soc. Victoria*, (n.s.) 42:41-52.
 FORSTER R.R., 1970. The spiders of New Zealand. Part 3. *Otago Mus. Bull.*, 3:1-184.